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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,526	10/06/2005	Elmar Kessenich	13486-00001-US	3587
23416 7590 01/15/2008 CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899			EXAMINER ZIMMERMAN, JOSHUA D	
			ART UNIT 2854	PAPER NUMBER
			MAIL DATE 01/15/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/537,526

Applicant(s)

KESSENICH ET AL.

Examiner

Joshua D. Zimmerman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/09/07 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knoll et al. (WO 2003/014831) in view of Tsuchida et al. (US 3981583) and Eck et al. (US 2004/0037603). For simplicity, the English language equivalent of Knoll et al. submitted by applicants (US 2004/0187719) is used for citations.

Regarding claim 21, Knoll et al. teach "a process for the production of flexographic printing plates for newspaper printing (paragraph 1), in which the starting

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material used is a photosensitive flexographic printing element having a thickness of from 0.4 to 1.0 mm (paragraph 1) comprising--arranged one on top of the other--at least

a flexible, metallic substrate (paragraph 1),

a photopolymerizable layer which in turn comprises at least one elastomeric binder, ethylenically unsaturated monomers and a photoinitiator (paragraph 1), and

a digitally imageable layer (paragraph 42), wherein an apparatus is used which comprises

(A) a unit for holding digitally imageable, photopolymerizable, flexographic printing elements having a thickness of from 0.4 to 1.0 mm, (this is an inherent feature of any apparatus used to carry out the method of Knoll et al., see paragraph 59)

(B) a unit for the digital imaging of the flexographic printing element (paragraph 39), selected from the group consisting of thermal printing heads, of IR lasers, inkjet printing heads or thermal printing heads (paragraphs 43-45),

(C) an exposure unit (paragraph 49),

(D) a washout unit (paragraph 51),

(E) a drying unit (paragraph 57),

(F) optionally an aftertreatment unit (paragraph 58),

(G) an output unit for the flexographic printing plates obtained (this is an inherent feature of any apparatus according to paragraph 59), and

(H) transport units for the flexographic printing elements or plates, which connect the units (A) to (G) to one another (paragraph 59);

and the process comprises the following steps:

(a) placing of the photosensitive flexographic elements in a holding unit (this is an inherent step of the process of Knoll et al.),

(b) imagewise recording on the digitally imageable layer by means of the imaging unit (B) for producing a mask on the flexographic printing element (paragraph 42),

(c) exposure of the flexographic printing element to actinic light by means of the exposure unit (C) through the mask produced (paragraph 49),

(d) removal of unexposed parts of the flexographic printing element and the residues of the digitally imageable layer by means of a suitable solvent or of a suitable solvent combination in the washout unit (D) (paragraph 51),

(e) drying of the washed out flexographic printing plate at from 105 to 160°C in the drying unit (E) (paragraph 2),

(f) optionally aftertreatment of the dried flexographic printing plate by means of UVA and/or UVC light (paragraph 58) and

(g) output of the finished flexographic printing plate, the flexographic printing element or the flexographic printing plate being transported by the transport means (H) from one unit to the respective next unit (this is an inherent feature of any inline apparatus which carries out the method of Knoll et al. see paragraph 59)."

Knoll et al. further teach that any 'substantially standard' apparatus can be used to carry out the method (paragraph 59).

Knoll et al. fail to specifically teach that the all the units are "designed so that the flexographic printing elements or plates are processed in the flat state," and are not "bent during the entire processing procedure."

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Tsuchida et al. disclose a substantially standard apparatus for processing a relief photopolymer plate wherein the plate remains in the flat state the entire time (abstract, figures).

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use the apparatus of Tsuchida et al. in order to carry out the method of Knoll et al.

Knoll et al. as modified fail to teach that the "digital imaging unit comprises at least two functional units of the same type." However, Eck et al. teach using multiple functional units of the same type in an imaging unit in order to achieve a higher resolution (paragraph 10).

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to further modify Knoll et al. to include an imaging unit comprising two functional units of the same type in order to achieve a higher resolution printing plate.

Regarding claim 22, Knoll et al. further teach "wherein the flexographic printing element is furthermore preexposed to actinic light in a step preceding (b), with the proviso that a flexographic printing element whose digitally imageable layer has a sufficient transparency to actinic light is used (paragraph 50)."

Regarding claim 23, Knoll et al. further teach "wherein the metallic substrate comprises magnetizable spring steel (paragraph 16)."

Regarding claim 24, Knoll et al. further teach "wherein the binder in the photopolymerizable layer is at least one styrene/butadiene block copolymer having a styrene content of from 20 to 50% by weight (paragraph 25)."

Regarding claim 25, Knoll et al. further teach "wherein the block copolymer has an average molecular weight M_w of from 80 000 to 150 000 g/mol (paragraph 21)."

Regarding claim 26, Knoll et al. further teach "wherein the styrene/butadiene block copolymer has a Shore A hardness of from 55 to 75 (paragraph 22)."

Regarding claim 27, Knoll et al. further teach "wherein the photopolymerizable layer furthermore comprises from 5 to 50% by weight of a plasticizer (paragraph 1)."

Response to Arguments

3. Applicants' arguments with respect to all the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Zimmerman whose telephone number is 571-272-2749. The examiner can normally be reached on M-R 8:30A - 6:00P, Alternate Fridays 8:30A-5:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D Zimmerman
Examiner
Art Unit 2854

jdz

A handwritten signature in black ink, appearing to read "Ren Yan", written in a cursive style.

REN YAN
PRIMARY EXAMINER